U.S. Scr. No. 10/629,285

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## **REMARKS**

The claims of this application are being resubmitted on the grounds that they have not been examined. Applicant continues to traverse the restriction requirement.

Claims 1-11 and 23-27 stand rejected under 35 USC 103(a) over Reddy ('677) in view of Dorfman ('392). According to the Examiner, "[i]t would have been obvious to one having ordinary skill in the art to employ a solid state consolidation process, as taught by Dorfman, in the method of Reddy in order to fabricate the metal layers with desired shapes. In addition, without the disclosure of unexpected results, it is the examiner's position that the specific materials and consolidation process claimed by the applicant are within the purview of one having ordinary skill in the art and would have been obvious to employ in the method of Reddy as a matter of design choice based on the desired physical properties of the articles being manufactured.""

This "analysis" is insufficient. In rejecting claims under 35 U.S.C. §103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531,1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011,1017,154 USPQ 173, 177 (CCPA 1967), cert. denied, 389U.S. 1057 (1968).

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When determining obviousness, "the [E]xaminer can satisfy the burden of showing obviousness of the combination 'only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), citing In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). "Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact." Dembiczak, 175 F.3d at 999-1000, 50 USPQ2d at 1617, citing McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fcd. Cir. 1993).

In this case, the Examiner offers only conclusory statements, which are not sufficient to establish prima facie obviousness. The only prior-art passage to which the Examiner refers is Dorfman at col. 1, lines 46-51, and col. 3, lines 4-26, which read as follows:

"Prior art methods directed to improving the homogeneity of W-Cu composite powders by coating tungsten particles with copper have not been successful as these copper-coated powders still exhibit a high tendency towards copper bleedout during the consolidation of the composite powder into fabricated shapes."

"Several factors influence the solid-state (below 1083°C. —the melting point of copper) and liquid-phase (above the melting point of copper) sintering behavior of submicron W-Cu powder systems. Compacted refractory metal powders undergo considerable microstructural changes and shrinkage during solidstate sintering (in the absence of liquid phase). Submicron particle size powders effectively recrystallize and sinter at temperatures (T) which are much lower than the melting temperatures  $(T_m)$  of refractory metals  $(T \ge 0.3 \ T_m)$  The initial sintering temperature for submicron (0.09-0.16 µm) tungsten powder is in the range of 900-1000°C. The spreading of copper and the formation of a monolayer copper coating on tungsten particles occurs in the temperature range of 1000-1083°C. By lowering the activation energy for tungsten diffusion, monolayer copper coatings activate the solid-state sintering of tungsten. Therefore, a number of complementary conditions are met for bonding submicron tungsten particles into a rigid tungsten framework within the composite powder compact during solid-state sintering (950-1080°C.). High fineness and homogeneity of the starting composite powders are expected to

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enhance the sintering of a structurally homogeneous tungsten framework. Such framework should, in turn, aid in making a homogeneous pseudoalloy."

These passages appear to Applicant to be unrelated to the pending claims. Although the first passage mentions "fabricated shapes," no mention is made "solid-state consolidation," "layers," or any other meaningful teaching. The second passage is limited to the sintering behavior of submicron W-Cu powder systems. The reference to a "framework" is non-analogous. If the Examiner feels this passage is relevant because instant claim 4 sets forth copper, Applicant respectfully counters that the Examiner is misguided.

In summary, it is impossible for Applicant to adequately respond to this Office Action because only "the Examiner's position" is used as the basis for rejection. A plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group. MPEP 707.07(d). Applicant respectfully requests comprehensive examination of all claims on the merits, allowance or both.

Questions regarding this application may be directed to Applicant's below-signed representative at the telephone and facsimile numbers provided below.

Respectfully submitted,

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